

WHAT IS CLAIMED IS:

1. An image sensing element for sensing an image formed by an image sensing lens, comprising a pixel which includes a first light-receiving region that
5 includes a region where a principal ray having passed through the image sensing lens is incident, and a second light-receiving region that does not include the region where the principal ray having passed through the image sensing lens is incident.
- 10 2. The element according to claim 1, wherein the second light-receiving region includes two divided light-receiving regions, and the two divided light-receiving regions are so arranged as to sandwich the first light-receiving region.
- 15 3. The element according to claim 2, wherein the two divided light-receiving regions are used to at least detect a focus state of the image sensing lens.
4. The element according to claim 2, wherein the two divided light-receiving regions are used to detect a
20 focus state of the image sensing lens and photograph an object.
5. The element according to claim 2, wherein one of the two divided light-receiving regions receives a beam from one of two predetermined regions on a pupil of the
25 image sensing lens and the other of the two divided light-receiving regions receives a beam from the other of the two predetermined regions on the pupil of the

image sensing lens, the two predetermined regions being regions that sandwich an optical axis.

6. The element according to claim 2, wherein the first light-receiving region is used to determine a time
5 during which charges are accumulated in the second light-receiving region.

7. The element according to claim 2, further comprising a function of individually outputting charges accumulated in the first light-receiving region and
10 charges accumulated in the two divided light-receiving regions, and a function of outputting a sum of charges accumulated in the first light-receiving region and charges accumulated in the two divided light-receiving regions.

15 8. The element according to claim 2, wherein an interval between the two divided light-receiving regions is relatively narrow at a center of the first light-receiving region and relatively wide at two ends of the first light-receiving region.

20 9. The element according to claim 2, wherein the first light-receiving region is relatively narrow at a center and relatively wide at two ends.

10. The element according to claim 2, wherein the first light-receiving region is narrower than a width of
25 each of the two divided light-receiving regions at a center, and wider than the width of each of the two divided light-receiving regions at two ends.

11. The element according to claim 2, wherein a region formed from the first and second light-receiving regions has a substantially regular polygonal shape.
12. The element according to claim 2, wherein the
5 second light-receiving region has a shape substantially obtained by cutting off each corner of a square.
13. The element according to claim 1, further comprising a microlens which causes two divided
10 light-receiving regions to respectively receive beams from two predetermined regions on a pupil of the image sensing lens, the two predetermined regions being regions that sandwich an optical axis.
14. The element according to claim 1, wherein the
15 second light-receiving region is used to at least detect a focus state of the image sensing lens.
15. The element according to claim 1, wherein the second light-receiving region is used to detect a focus state of the image sensing lens and photograph an object.
16. The element according to claim 1, wherein the
20 first light-receiving region is used to determine a time during which charges are accumulated in the second light-receiving region.
17. The element according to claim 1, further comprising a microlens on a region formed from the first
25 and second light-receiving regions.
18. An image sensing apparatus comprising:
an image sensing element having a pixel which

includes a first light-receiving region that includes a region where a principal ray having passed through an image sensing lens is incident, and a second light-receiving region that does not include the region where the principal ray having passed through the image sensing lens is incident; and

a control unit for detecting a focus state of the image sensing lens by using the second light-receiving region, and performing focus adjustment.

10 19. The apparatus according to claim 18, wherein said control unit controls photographing operation so as to photograph an object by using the second light-receiving region.

20. The apparatus according to claim 18, wherein said control unit determines, by using the first light-receiving region, a time during which charges are accumulated in the second light-receiving region.

21. The apparatus according to claim 18, wherein said control unit controls a time during which charges are accumulated in the second light-receiving region, in accordance with an exposure amount of the first light-receiving region in focus adjustment.

22. The apparatus according to claim 18, wherein said control unit individually reads out charges accumulated in the first light-receiving region and charges accumulated in the second light-receiving region in focus adjustment, and reads out a sum of charges

accumulated in the first light-receiving region and charges accumulated in the two divided light-receiving regions in photography.

23. The apparatus according to claim 18, wherein the
5 second light-receiving region includes two divided light-receiving regions, and the two divided light-receiving regions are so arranged as to sandwich the first light-receiving region.

24. The apparatus according to claim 23, wherein the
10 two divided light-receiving regions receive beams from two predetermined regions on a pupil of the image sensing lens, the two predetermined regions being regions that sandwich an optical axis.

25. The apparatus according to claim 23, wherein an
15 interval between the two divided light-receiving regions is relatively narrow at a center of the first light-receiving region and relatively wide at two ends of the first light-receiving region.

26. The apparatus according to claim 23, wherein the
20 first light-receiving region is relatively narrow at a center and relatively wide at two ends.

27. The apparatus according to claim 23, wherein the
first light-receiving region is narrower than a width of each of the two divided light-receiving regions at a
25 center, and wider than the width of each of the two divided light-receiving regions at two ends.

28. The apparatus according to claim 23, wherein a

region formed from the first and second light-receiving regions has a substantially regular polygonal shape.

29. The apparatus according to claim 23, wherein the second light-receiving region has a shape substantially
5 obtained by cutting off each corner of a square.

30. An image processing apparatus comprising the image sensing apparatus defined in claim 18.

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